

# OPERATION MANUAL

## Paper Folder F-30N/F-25N/F-15N



Read this Operation Manual before using this machine.  
Keep the Operation Manual with care in a fixed storage place  
so that it may be available whenever required.

**UCHIDA YOKO CO., LTD.**

November 22, 2001

# Safety Instructions

## Definition of Symbols and Notes

In this manual following names and signs stand for possible dangers.



### Danger

This Symbol stands for immediate danger threatening the life and health of persons. Disregarding these instructions may cause severe damage to health and even serious injuries.



### Caution

This symbol stands for an endangering situation that may occur. Disregarding these instructions may lead to slight injuries or damage to property.



### Note

This symbol stands for notes, operational hints and other useful information. They are convenient for exploiting the machine's functional abilities.

<b>Danger</b>	
	Make sure that the machine is electrically grounded. This prevents an electric shock when there is a leak of electricity.
	Use the machine at 110 – 120 VAC, 220 – 240 VAC with a frequency of 50Hz to 60Hz. A fire may start or the machine may break down if a higher or lower voltage is used, or if an electric current with a frequency that is not within the range of frequency stated above.
	Do not place any object on this machine. A fire may start or electricity may leak if water or a foreign object enters inside the machine.
	Handle the power cord with care. A fire may start or an electric shock may be caused if the cord is damaged, broken, or processed, if a heavy object is placed on the cord, or if the cord is bent forcibly.
	Do not pull the power plug out of or put it in the electric outlet using a wet hand. Otherwise, an electric shock may be caused.
	Do not remove the cover of this machine. Otherwise, an electric shock or injury may be caused.
	Do not remodel this machine. Otherwise, a fire may break out or an electric shock may be caused.
	If the machine is used when it is in an abnormal condition, such as generating heat, emitting smoke, and giving out a strange smell, a fire may break out or an electric shock may be caused. Turn off the power switch immediately and then pull the power plug out of the electric outlet. Afterward, consult with your dealer.
	If abnormalities such as the power cord generating heat and giving out a strange smell are found, turn off the power switch immediately and then pull the power plug out of the electric outlet. Afterward, consult your dealer.
	If a foreign object enters into the machine, turn off the power switch first and then pull the power plug out of the electric outlet. Afterward, consult your dealer.
If thunder approaches, pull the power cord out of the electric outlet to prevent a fire or breakdown caused by the falling of a thunderbolt.	

## Caution



Do not let hairs, a necktie, or necklace hang above the drive of the machine. Doing so may cause an injury.

Do not put the machine on an unstable place such as a shaky stand and a slant floor. Doing so may cause the machine to drop or fall down, causing an injury.

Do not put the machine in a moist or dusty place. Doing so may start a fire or cause an electric shock.

Be sure to pull out the power cord while holding the plug. If the power plug is pulled out while holding the cord, a fire may break out or an electric shock may be caused.

Be sure to pull the power plug out of the electric outlet first when moving this machine. Otherwise, the cord may be damaged, causing a fire or an electric shock.

Be sure to pull the power plug out of the electric outlet for safety purposes when this machine is not used for consecutive holidays or for other reasons.

# Introduction


Thank you very much for purchasing the Paper Folder F-30N/F-25N/F-15N. This machine enables users to achieve greater efficiency in clerical work by releasing them from paper-folding work that has manually been performed in the past. Please read this Operation Manual carefully before using this machine.

## Contents

Safety Instructions .....	2
Introduction .....	4
Contents .....	4
<b>1 Information Before Use .....</b>	<b>5</b>
(1) Precautions on Installation	
(2) Checking Accessories	
(3) Part Name	
(4) Operation Panel and Functions	
<b>2 How to Use .....</b>	<b>8</b>
<b>1. Preparation</b>	
(1) Setting Table 1 and 2	
(2) Setting Paper	
(3) Setting Paper Ejection Roller	
(4) Setting Paper Stacking Table	
<b>2. Operation Procedure</b>	
(1) Switching the Power on	
(2) Setting Paper Fold Position	
(3) Test Folding	
(4) Adjusting Paper Fold Position	
(5) Slant Ejection Adjustment	
(6) To start Folding	
(7) To Stop Paper Feed	
(8) Correction of Paper Jam	
(9) Special Folding (Cross Folding)	
<b>3 Maintenance .....</b>	<b>14</b>
<b>4 Trouble Shooting .....</b>	<b>15</b>
<b>5 Specifications .....</b>	<b>16</b>

# 1 Information Before Use

## (1) Precautions on Installation

Caution	
	Do not install it in an unstable place such as on a faltering bench or an inclined place. It may fall down or drop and cause an injury.
	Do not install it in a dusty place or a place of high humidity. It may cause a fire, or an electric shock.

Do not install it in a place exposed to direct sunlight.

Avoid a location near a window.

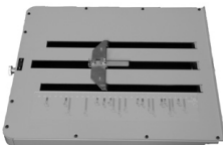

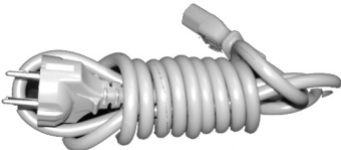



It should be used at an ambient temperature of 5 to 35°C

Do not install it in a location near a heating equipment.

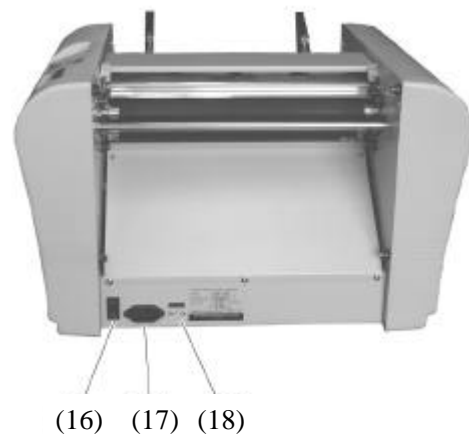
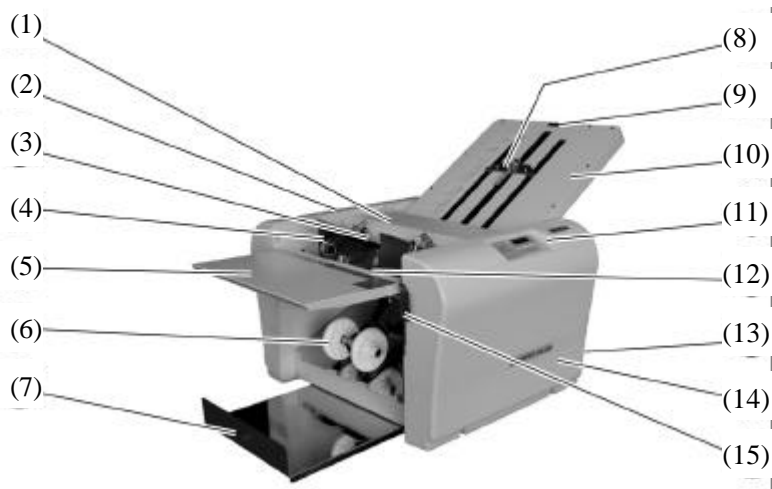
Do not install it in a place exposed to a direct wind.

## (2) Checking Accessories

Check accessories immediately after unpacking. Should there be anything short, contact your dealer. Also, check if the warranty has the dealer's sign and the date of purchase is mentioned.

Accessories	Qty	Illustration
Table 1 (Only for F-30N/F-25N)	1	
Table 2	1	
Power cord	1	
Paper support auxiliary paper feed guide, right and left (Only for F-30N)	Right 1 Left 1	
Machine cover	1	
Operation Manual	1	

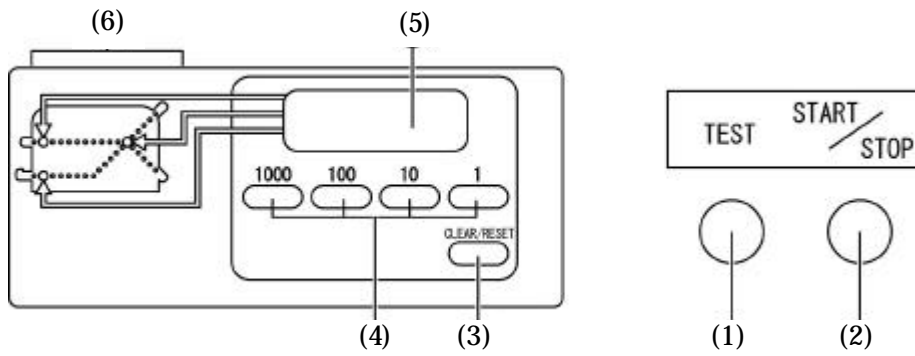
(3) Part Name



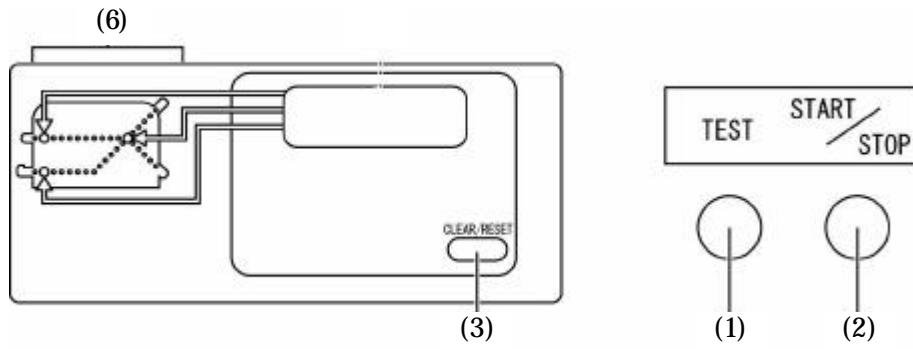
Number	Name	Number	Name
(1)	Roller cover	(10)	Table 1(Only for F-30N/F-25N)
(2)	Left side cover	(11)	Control panel
(3)	Paper feed roller	(12)	Paper feed table
(4)	Paper guide	(13)	Table 2
(5)	Auxiliary feed table	(14)	Right side cover
(6)	Paper ejection roller	(15)	Paper feed table lever
(7)	Paper stacking table	(16)	Power switch
(8)	Stopper plate	(17)	Inlet
(9)	Fold position adjustment knob	(18)	Circuit breaker

(4) Operation Panel and Functions

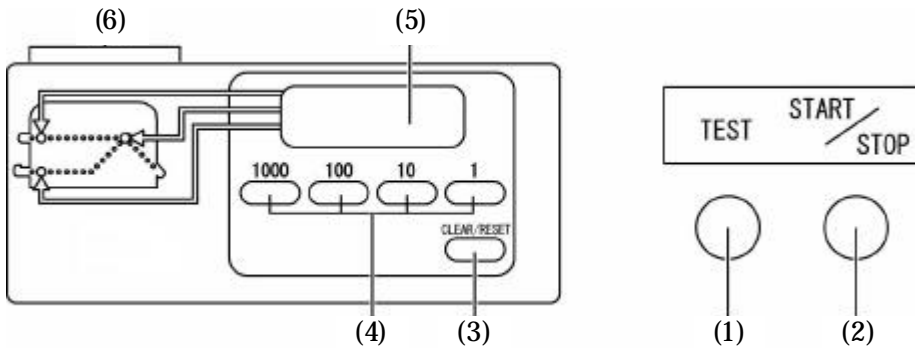
**F-30N**



**F-25N**



**F-15N**



No.	Designation/Indication	Function
(1)	Test key	Test folds two sheets without counting.
(2)	Start/Stop key	Starts and stops the machine.
(3)	Clear/Reset key	Clears counter indication resets error.
(4)	Numerical key	Inputs the desired number for subtraction counting .
(5)	Counter	Show the number of sheets.
(6)	Check lamp	It lights when paper stock runs short, or indicates the location where paper feed trouble occurs.

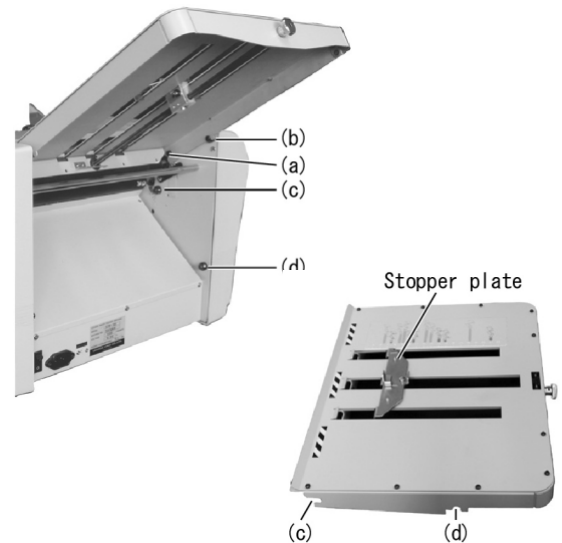
## 2 How to Use

### 1. Preparation

#### (1) Setting Table 1 and 2

Fit (a) and (b) of Table 1 and (c) and (d) of Table 2 on the studs (a), (b), (c) and (d) at the left and right sides of the side plate.

\* When setting Table 1, be sure to put the stopper plate in the center. If Table 1 and 2 are not properly set, the machine may not be able to fold paper correctly.



#### Caution



Be sure to ensure that both Table 1 and 2 don't have a warp and are properly fit in the positions of the studs (a), (b), (c) and (d). If they are improperly set, it may cause incorrect folding, or they may come off the machine, causing an injury.

#### (2) Setting Paper

- (1) Pulling the paper stacking table out and set it while lifting the auxiliary table.
- (2) Raise the paper feed table lever.
- (3) Set the paper guide at the indication for the size of paper stock table used.
- (4) Place the paper on the feed table with its printed side facing up.

\* Load the paper neatly.

\* Load the paper on the paper feed table with its leading edge flush with the front plate of feed tray.

• Place the paper with its printed side down in case of fold-out.

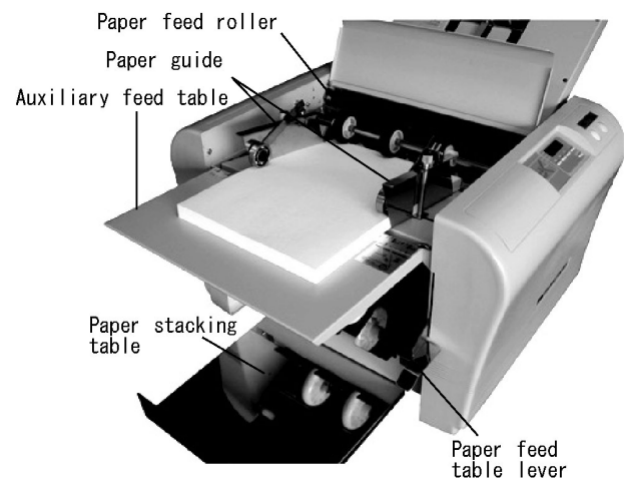
- (5) Place the paper on the feed table so that it touches the paper lightly, and then tighten the paper setscrew.
- (6) Lower the paper feed table lever and set the paper.

\* If the paper does not come in contact with the paper feed roller, it may be fed improperly. In such case, the leading edge of the paper may touch the guide plate in the front and prevent the paper from being fed. In this case, reset it by sliding it a little backward.

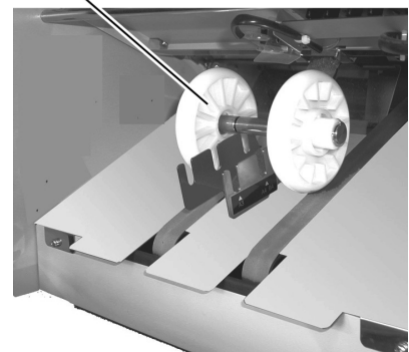
\* If the paper has curled or wrinkled part, it may cause trouble. Correct it before use.

\* In case of printed paper, use it only after the ink is dry,

otherwise the paper feed rubber roller, paper separator, fold roller, and other parts of the unit will be



#### Paper discharge roller



stained with ink, which may cause trouble.

\* Do not use ruled paper as it may cause paper folding to deteriorate.

(3) Setting Paper Ejection Roller

Set the paper ejection roller at the indication for the size of paper stock table used. If the roller is set at a wrong position, it may cause trouble such as a coiling of paper around the roller.

\* The folded paper length may be altered depending on fold type and paper curl may be caused by changes of temperature and humidity.

Therefore, whenever paper jam occurs at the stage of ejection, reset to adjust the paper eject roller to the best position.

(4) Setting Paper Stacking Table

Pull out the paper stacking table and set it so that the ejected sheets flow out smoothly.


## 2. Operation Procedure

(1) Switch the power on.

Insert the power plug into the outlet.

Switch the power on.

\* Be sure to remove the power plug from the outlet after use.

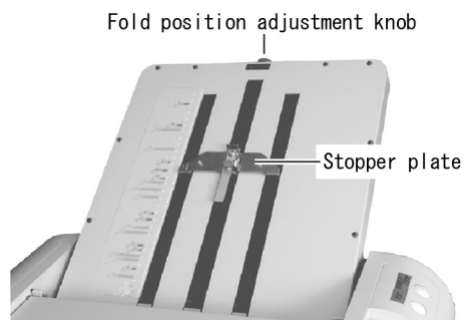
<b>Danger</b>	
	Do not plug or unplug it with a wet hand. It may cause an electric shock.

(2) Setting Paper Fold Position

Pull the half-nut lever in the direction of the arrow to move the stopper plate to the desired position on Table 1 and 2, matching the stopper plate mark ( $\triangle$ ) with the position, and leave the half-nut lever there. The stopper plate automatically locks at the position where the half-nut lever remains.

\* In case of single fold only, all sizes paper should be set at the position of “ALL SIZES”.


Should wrinkles or irregular folding occur in single fold, move the stopper plate until halting by the stopper adjustment knob.



(3) Test Folding

Press the Test key to feed two sheets of paper. Check if the paper has been folded correctly by examining the second one of the two folded sheets.












\* When the fold position is not correct, refer to “Adjustment Paper Fold Position”.

<b>Caution</b>	
	Never put your hand in any of driving part such as a roller. It may cause an injury.
	Do not bring hair, a tie, or a necklace and so on near any of driving part such as a roller. It may cause an injury.

(4) Adjusting Paper Fold Position

When the fold position is incorrect, refer to the following chart.

Adjustment Knob Set Chart (to indicate the direction of turning the knob)

	FOLD TYPE	SINGLE	GATE	LETTER	ZIGZAG	DOUBLE	PARALLEL FOLD-OUT
Table 1	If the fold appears this way (length of folding)	None	 (1/4L)	 (1/3L)	 (2/3L)	 (1/2L)	 (1/4L)
	Side (A) is longer.		Shorten length	Shorten length	Shorten length	Shorten length	Shorten length
	Side (A) is shorter.		Extend length	Extend length	Extend length	Extend length	Extend length
Table 2	If the fold appears this way (length of folding)	 (1/2L)	 (1/2L)	 (1/3L)	 (1/3L)	 (1/4L)	 (1/4L)
	Side (A) is longer.	Shorten length	Shorten length	Shorten length	Shorten length	Shorten length	Shorten length
	Side (A) is shorter.	Extend length	Extend length	Extend length	Extend length	Extend length	Extend length

\* The illustration represents the folded paper seen from the operator.

\*( ) shows length of folding and L stands for paper length.

(4) -1 Folding other than single folding (F-15N)

\* Be sure to switch "Paper Separator Lever ON•OFF" lever when the second folding is performed after the first folding.

• This machine is exclusively used for single folding, but by folding the once folded paper, folding of other types such as letter, zigzag, double and parallel fold-out can be performed.

• Be sure to measure the total length of the paper before setting the position of the stopper plate.

<Example> In case of B4 with the total length = 364 mm>

Double folding First folding  $1/2 L$  Set the stopper plate at the scale position of  
 $1/2 \times 364 = 182\text{mm}$ .

Second folding  $1/4 L$   $1/4 \times 362 = 91 \text{ mm}$

Letter folding First and second folding  $1/3 L$   $1/3 \times 362 = 120.6 \text{ mm}$

First folding 121 mm

Second folding 122 mm

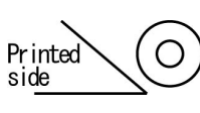



(In order to prevent from folding out on the first, set the paper length 1mm longer on the second)

\* The position where the stopper plate is set

The dimensions shown in the table are indicated based on each paper size.

L stands for the total length of the paper

Unit = mm.

FOLD TYPE		SINGLE		DOUBLE		PARALLEL FOLD-OUT		LETTER		ZIGZAG	
Paper size	Paper set method for second folding										
	Stopper plate set position	First folding	First folding	Second folding	First folding	Second folding	First folding	Second folding	First folding	Second folding	
Stopper plate set position for non-standard paper		1/2L	1/2L	1/4L	1/4L	1/4L	1/3L	1/3L	1/3L	1/3L	
B5 (257) mm		128.5	128.5	64.5	64	65	85.5	86.5	85.5	86.5	
B4 (364) mm		182	182	91	91	92	121	122	121	122	
A4 (297) mm		148.5	148.5	74.5	74	75	99	100	99	100	
A3 (420) mm		210	210	105	105	106	140	141	140	141	

\* When performing second folding, it should be done after drawing the paper well.

In case of parallel fold-out, letter, and zigzag folding, length of second folding is indicated 1 mm longer than that of the first folding (to prevent from the folding out of the first time folding).

#### (4) - 2 How to set the Paper Separator ON•OFF (F-15N)

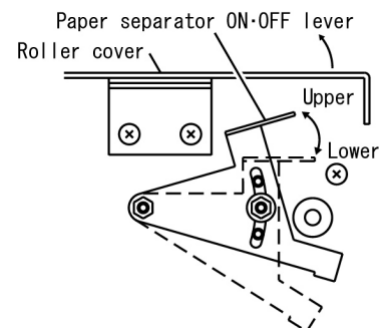
\* Open the roller cover.

(1) In case of the first folding, set the paper separator ON•OFF lever at the upper position.

\* If it is set at the lower position, such case as multiple sheets are fed at one time increases as the paper separator and the paper feed rubber rollers are apart.

(2) In case of the second folding (for double, letter, zigzag, or parallel fold-out folding), set it at the lower position (Make sure that it is the lower position.)

\* If it is set at the upper position, the machine becomes liable to paper jam, particularly for the last one sheet, as the paper separator and the paper feed rubber roller are flush.



#### (5) Slant Ejection Adjustment

Turn the slant ejection adjustment knob to the right if the lower side of the folded paper slants to the right. Turn the knob to the left of the lower side slants to the left.

\* In other cases than single fold, place the folded paper with its face down on Table 1 and make slant ejection adjustment.



#### (6) To start Folding

Press the Start/Stop key. Then, the machine starts to fold the sheets continuously.

Press the Start/Stop again while the machine is in operation, it will be halted.

\* The counter continues to add up.

If the desired number of sheets only is to be fed, set that number by pressing 1000, 100,10 keys. Then, the Reduction Mode lamp will be on.

If Clear/Reset key is pressed, 0 is indicated and the Addition Mode is set.

(Only for F30N/F-15N)

\* In case of printed paper, use it only after the ink is dry, otherwise the paper feed rubber roller, paper separate, fold roller, and other parts of the unit will be stained with ink, causing trouble.

\* When holding the paper that is liable to paper feed slip

Switch the power on while pressing the Start/Stop key

Lo50 or Lo60 (L for F-25N) will be indicated and the volume of the paper to be fed will increase.

\* When folding small size paper likely to double paper feed (A6 and B7 size)

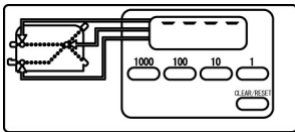
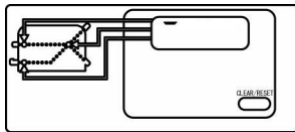
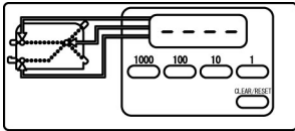
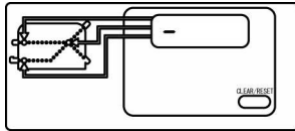
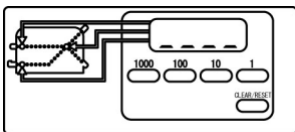
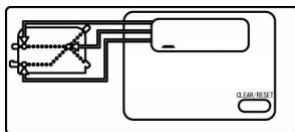
Switch the power on while pressing the Test key

Sh50 or Sh60 (S for F-25N) will be indicated and the volume of the paper to be fed will be reduced.

Both volume of the paper to be fed are cancelled when the power is switched off.

\* Under the following conditions, the machine will automatically stop feeding.

\* Press the Clear/Reset key to reset after the error is corrected.

Conditions	Indication on F-30N/F-15N	Indication on F-25N
<ul style="list-style-type: none"> <li>When the Start/Stop key is pressed while there is no stock.</li> <li>When the Start/Stop key is pressed while the paper feed lever is at the lower position.</li> <li>When the stock runs short while folding at the subtraction Mode. (Only for F-30N/F-15N)</li> </ul>		
<ul style="list-style-type: none"> <li>When paper feed slip occurs</li> <li>When paper jam occurs at Table 1 and Table 2</li> </ul>		
<ul style="list-style-type: none"> <li>when paper stack table is full.</li> <li>when paper jam occurs at the paper ejecting unit.</li> </ul>		

#### (7) To Stop Paper Feed

Press the STOP key to halt paper feed while the machine is in operation.

#### (8) Correction of Paper Jam

Should paper jam occurs, switch the power off immediately and remove the jammed sheets. When the jammed paper is stuck around the folder roller or other parts, it can be easily removed by detaching the Table 1 and 2 from the unit.

\* When the roller cover is opened, the machine will stop the operation in an instant.

(9) Special Folding (Cross Folding)

\* This function is standard equipment for F-30N model.

\* It will be convenient when folding large-size paper as A3 or B4 so as to enclose them in standard-size envelop.

<Example >

In case of single folding and double folding (It is also possible for letter folding and zigzag folding), it will be neatly fold when double folding is performed after single folding is performed first.

\* Draw the first fold by hand.

\* Arrange the sheets neatly enough before stacking them on the paper feed table.

(1) Place the single folded paper on the paper feed table and

fix it with the right and left side guides stuck to it.

(2) Loosen the right and left setscrews with cross-head

screwdriver and move to the position to hold both ends of the paper.

(3) Raise the paper feed table.

\* Turn the paper feed rubber roller by hand so that the leading edge of the first paper may touch the paper feed roller and move about 1cm ahead of it.

Particularly in case of *sarashi* paper, it prevents feed error.

(4) Set the stopper of Table 1 and 2 at the designated position.

(5) Press the Start/Stop key and check the fold position. After one sheet is folded press the Start/Stop key and check the fold position.

\* Fine adjustment is made to the fold position by using the fine adjustment knob.

(6) Press the Start/Stop key after checking the fold position, and the machine continuously folds.

## 3 Maintenance

- (1) Before cleaning the machine, be sure to switch the power off and pull the power plug from the outlet.
- (2) When the unit is not in use, put its cover in place to prevent dust, paper chips, etc. to accumulating on the paper fold rollers.
- (3) If paper chips, ink, etc. are accumulated on the paper fold rollers, it may cause trouble such as wrinkles, or improper folding. To prevent from it, clean them periodically as follows:
  - (1) Remove Table 1 and 2.
  - (2) Clean the surface of the fold rollers using the cleaning kit to remove stains or dust.
- (4) If paper chips, ink, etc. are accumulated on the paper feed rubber roller and the paper separator, paper feed performance deteriorates and the machine becomes liable to paper jam or slip. To prevent from it, clean them periodically as follows:
  - (1) Clean the surface of the paper feed rubber fold rollers using the cleaning kit to remove stain or dust.
  - (2) Move the paper feed shaft toward you in the order as shown in the figure of the upper right then, clean the paper feed shaft.
- (5) Consumable products.
  - (1) Paper feed rubber roller, rubber brake, paper feed separator used for the unit are consumable products.
  - (2) Fold rollers are guaranteed for as long as six months.

## 4 Trouble Shooting

Trouble	Possible Cause	Measures
The paper is not fed (slipped)	Paper stuck just after it is printed	Loosen the paper sufficiently or feed the paper after it is dry.
	Stains on the paper separator	Clean the paper feed separator using the unit cleaner.
	Stains on the paper feed rubber roller.	Clean the paper chips or ink on the paper feed roller with the unit cleaner.
	The paper separator is worn out.	Replace the paper separator with a new one.
	The volume of the paper loaded on the paper feed table is not enough.	If the volume on the paper feed table is not enough, it does not feed since the paper detection lever is installed. Load 20 sheets or more.
The machine does not operate even after the Start/Stop key is pressed.	Paper jam inside the unit.	Detach Table 1 and 2 and remove the paper in the unit.
Wrinkles appear on the paper.	Paper stuck just after it is printed	Loosen the paper sufficiently or feed the paper after it is dry.
	Stains on the paper separator	Clean the paper separator using the unit cleaner.
	Stains on the paper feed roller	Clean the paper chips or ink on the paper feed roller with the unit cleaner.
	Stains on four paper fold rollers	Clean the stain on four fold rollers using the unit cleaner.
	Table 1 and 2 are not properly set.	Reset properly.
	Paper jam in Table 1 and 2	Detach Table 1 and 2 and remove the jammed paper out.
Improper fold position	The total length of the paper is not standard size.	Measure the total length of the paper and adjust using the fine adjustment knob
Drawing paper (125kg or lighter) cannot be folded.	The surface of four fold rollers are stains with paper chips or ink (slippery situation)	Clean away the stain on four fold rollers using the unit cleaner.
	Low room temperature	The paper gets stiff and hard to fold at the low room temperature in winter. Perform folding after leaving the paper as it is for 3 to 4 hours at the temperature of 20 to 25°C.

## 5 Machine Specifications

Model	F-30N / F-25N	
Paper size	91 × 128 mm (B7) to 297 × 432 mm (A3) or 3.5" × 5.0" to 11" × 17" B7 size is for SINGLE only. B6 size cannot be folded into GATE.	
Paper weight	45 – 220 g/m <sup>2</sup> (up to 135 g/m <sup>2</sup> for single folding)	
Paper quality	Woody paper, high-quality paper, high-quality paper for stencil printing, medium-quality paper	
Fold type	Single, (Folding twice) Letter, Zigzag, Double, Parallel, Fold-out, Gate	
Fold dimensions	Maximum Table 1: 330 mm Table 2: 224 mm	
	Minimum Table 1: 50 mm Table 2: 40 mm	
Paper feed system	Three-roller friction feed system	
Max. stacking capacity	500 sheets (64/m <sup>2</sup> )	
Folding speed	50Hz 7000 / 60Hz 8000 sheets (A4 single folding)	
Operation method	Pressing digital keys	
Available functions	Slant ejection adjustment, paper jam detection, four digits counter (with addition and reduction mode) Auxiliary paper guide for cross folding (F-30N) Jam map indication	
Power		
Power used (V)	110 – 120	220 – 240
Consumption (W)	86 / 116	
Frequency (Hz)	50 / 60	
Dimensions	W820 × D530 × H520 mm (while in use) W660 × D530 × H520 mm (when put away)	
Net weight	27.0 kg	

Model	F-15N	
Paper size	B7 size (91 × 128 mm) – A3 (297 × 420 mm)	
Paper weight	45 – 220 g/m <sup>2</sup> (Single folding of A4 size)	
Paper quality	Woody paper, high-quality paper, high-quality paper for stencil printing, medium-quality paper	
Fold type	Single, (Folding twice) Letter, Zigzag, Double, Parallel Fold-out Cross- fold by processing paper through the machine twice	
Fold dimensions	Maximum: 224 mm	
	Minimum: 40 mm	
Paper feed system	Three-roller friction feed system	
Max. stacking capacity	500 sheets (64 g/m <sup>2</sup> paper)	
Folding speed	50Hz 7000 / 60Hz 8000 (A4 single folding)	
Operation method	Pressing digital keys	
Available functions	Slant ejection adjustment, paper jam detection, four digits counter (with addition/reduction mode), Auxiliary paper guide for cross folding (F-30N) Jam map indication	
Power		
Power used (V)	110 – 120	220 – 240
Consumption (W)	86 – 116W	
Frequency (Hz)	50 / 60	
Dimensions	W680×D530×H340 mm (during use) W510×D530×H340 mm (when put away)	
Net weight	24 kg	